

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS P O Box 1450 Alexandra, Virgina 22313-1450 www.spile.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/909,460	07/18/2001	Lynn B. Lunsford	08191-014002	1198	
26161 FISH & RICH	7590 06/02/2009 ARDSON PC	EXAMINER			
P.O. BOX 102:	2	MARVICH, MARIA			
MINNEAPOL	IS, MN 55440-1022		ART UNIT	PAPER NUMBER	
			1633		
			•		
			NOTIFICATION DATE	DELIVERY MODE	
			06/02/2009	ELECTRONIC	

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

## Advisory Action Before the Filing of an Appeal Brief

Application No.	Applicant(s)		
09/909,460	LUNSFORD ET AL.		
Examiner	Art Unit		
MARIA B. MARVICH	1633		
	09/909,460 Examiner	09/909,460 LUNSFORD ET AL.  Examiner Art Unit	

	MARIA B. MARVICH	1633	
The MAILING DATE of this communication appe	ars on the cover sheet with the o	orrespondence add	ress
THE REPLY FILED <u>01 May 2009</u> FAILS TO PLACE THIS APPI	ICATION IN CONDITION FOR AL	LOWANCE.	
<ol> <li>N The reply was filed after a final rejection, but prior to or on application, applicant must timely file one of the following application in condition for allowance; (2) a Notice of Appendors for Continued Examination (RCE) in compliance with 37 C periods:</li> </ol>	eplies: (1) an amendment, affidavi	t, or other evidence, w with 37 CFR 41.31; or	hich places the (3) a Request
a)   The period for reply expires <u>5</u> months from the mailing date the  The period for reply expires on: (1) the mailing date of this no event, however, will the statutory period for reply expire to Examiner Note: If box 1 is checked, check either box (a) or, MONTHS OF THE FINAL REJECTION. See MPEP 766.07(f)	dvisory Action, or (2) the date set forth ter than SIX MONTHS from the mailing b). ONLY CHECK BOX (b) WHEN THE	date of the final rejection	n.
Extensions of time may be obtained under 37 CFR 1.136(a). The date have been filed is the date for purposes of determining the period civil under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the set forth in (b) above, if checked. Any reply received by the Office later may reduce any earned patient term adjustment. See 37 CFR 1.704(b). NOTICE OF APPEAL.	on which the petition under 37 CFR 1.1: ension and the corresponding amount of hortened statutory period for reply origi	of the fee. The appropria nally set in the final Office	ate extension fee e action; or (2) as
<ol> <li>The Notice of Appeal was filed on A brief in comp filing the Notice of Appeal (37 CFR 41.37(a)), or any exter Notice of Appeal has been filed, any reply must be filed wi</li> </ol>	sion thereof (37 CFR 41.37(e)), to	avoid dismissal of the	
<u>AMENDMENTS</u>			
<ol> <li>The proposed amendment(s) filed after a final rejection, (a)</li> <li>They raise new issues that would require further core (b)</li> <li>They raise the issue of new matter (see NOTE belown of the properties)</li> <li>They are not deemed to place the application in bett appeal; and/or</li> </ol>	sideration and/or search (see NOT v);	E below);	
(d) ☐ They present additional claims without canceling a c NOTE: (See 37 CFR 1.116 and 41.33(a)).	orresponding number of finally reje	ected claims.	
4. The amendments are not in compliance with 37 CFR 1.12	1. See attached Notice of Non-Cor	mpliant Amendment (I	PTOL-324).
<ol><li>Applicant's reply has overcome the following rejection(s):</li></ol>			
<ol> <li>Newly proposed or amended claim(s) would be all non-allowable claim(s).</li> </ol>	owable if submitted in a separate, t	imely filed amendmer	t canceling the
7. \(\times\) For purposes of appeal, the proposed amendment(s); a) \( \times\) how the new or amended claims would be rejected is prov The status of the claim(s) is (or will be) as follows:  Claim(s) allowed to:  Claim(s) rejected to:  Claim(s) rejected; 1, 4, 52, 64-69, 85-113.  Claim(s) withdrawn from consideration:		be entered and an ex	planation of
AFFIDAVIT OR OTHER EVIDENCE			
<ol> <li>The affidavit or other evidence filed after a final action, but because applicant failed to provide a showing of good and was not earlier presented. See 37 CFR 1.116(e).</li> </ol>			
<ol> <li>The affidavit or other evidence filed after the date of filing entered because the affidavit or other evidence failed to o showing a good and sufficient reasons why it is necessary</li> </ol>	vercome <u>all</u> rejections under appea	l and/or appellant fail:	to provide a
<ol> <li>The affidavit or other evidence is entered. An explanation REQUEST FOR RECONSIDERATION/OTHER</li> </ol>	of the status of the claims after er	ntry is below or attach	ed.
<ol> <li>The request for reconsideration has been considered but See Continuation Sheet.</li> </ol>	does NOT place the application in	condition for allowan	ce because:
<ol> <li>Note the attached Information Disclosure Statement(s). (</li> <li>M Other: See Continuation Sheet.</li> </ol>	PTO/SB/08) Paper No(s)		

/Maria B Marvich/ Primary Examiner, Art Unit 1633 Continuation of 11. does NOT place the application in condition for allowance because: because applicants have not overcome the rejections under 35 USC 103 as set forth below.

Continuation of 13. Other: Applicants have argued that priority for the instant application can be found in the priority document PCTUL938(01499). PCTUL938(01499) teaches microparticles for delivery of nucleic acids when the particles comprise a polymeric matrix, nucleic acid and a stabilizing compound. This stabilizing compound can be a lipid such as CTAB and furthermore interacts with the nucleic acids of the particles. Therfore, PCTUL938(01499) supports the teachings of the instant specification and the instant claims. Therefore, the instant claims are afforded the priority date of PCT/US98(01499, 1/22/1998. This means that the application predates the Lambert et al reference.

However, the rejection under 35 USC 103 as being unpatentable over Hedley et al (US Patent 5,783,567, effective filing date of 1/22/1997) in view of Balland et al (NATO ASI Series, 1996, Vol 260, pages 131-142) stands.

The claims were also rejected under 35 USC, 103 as being unpatentable over Paphadiopolous et al (US 6,210,707) in view of Cleek et al (J Biomed. Materials Res, 1997, pages 525-530). Paphadiopolous et al (US 6,210,707), was cited as art because it teaches lipidic microparticles made with amphiphilic cationic lipids complexed with nucleic acids and polymer (see e.g. col 7, line 16-29). Cleek teaches microparticles comprised of nucleic acid and PLGA, which appears to satisfy the limitation that the polymers have a solubility of less than about 1 mg/l. Paphadjopolous et al (US 6,210,707) is the US Patent of US serial number 09/076,618 filed 5/12/1998, which claims priority to parent application 08/967,791. A closer look found that 08/967,791 has been patented as 6,071,533 but was not retrieved in an art search because the term "microparticle" is not used. The question arises as to whether the compositions in both patents are inherently the same and hence both comprise "microparticles". Reviewing 6,210,707 reveals that the microparticle is a cationic lipid:nucleic acid complex wherein a lipid is complexed with a nucleic acid that is then combined with a polymer. The product is a condensed structurally stable complex with a size appropriate for transduction (see e.g. col 2, line 8-32). "The size of these lipid:nucleic acid complexes can be estimated by dynamic light scattering to be in the range of 410.+-.150 nm." These same teachigns are found in 6,071,533. For example, "To keep the lipid:nucleic acid complexes from forming large aggregates and losing transfecting activity with time, two approaches are taken; (1) incorporating a small amount of a hydrophilic polymer such as PEG-PE (approx, 1% mole ratio) into lipid:nucleic acid complexes within a few minutes after their preparation; and/or (2) condensing the nucleic acid with a polycation such as a polyamine (e.g., approximately 0.05 to 5.0 nmole of spermidine per mulg DNA) prior to mixing with the liposomes. The optimal amount of the polyamines and hydrophilic polymer can be determined by one of skill in the art by titrating the polyamine or hydrophilic polymer with the nucleic acid so that the formed complexes do not form large, e.g., visible, aggregates. The size of these lipid:nucleic acid complexes can be estimated by dynamic light scattering to be in the range of 410.+-.150 nm.\*, which methods are also taught in 6,210,707. In fact, the same methods relied upon to in 6.210.707 for teaching formation of lipidic; nucleic acid complexes further complexed with polymers are found in both applications. The two differ in that it appears in that the 6.210.707 refers to these complexes as microparticles, however, they appear to be the same thing.